# THE JOURNAL OF SCHOOL HEALTH

Vol. XXXI No. 1

JANUARY
1961

PUBLISHED BY
THE AMERICAN SCHOOL HEALTH ASSOCIATION

## AMERICAN SCHOOL HEALTH ASSOCIATION

Organized 1927

*Devoted to the interests and advancement of those engaged in school health activities and the service rendered by them*

### Officers of the American School Health Association
### October, 1960 to October, 1961

*President:*
Leland M. Carlson, M.D., Denver Public Schools, 414-14th St., Denver 2, Colorado

*President-Elect:*
J. Keogh Rash, H.S.D., University of Indiana, Bloomington, Indiana

*First Vice President:*
Irma Fricke, R.N., Community Consolidated School, District 65, Cook County, Evanston, Illinois

*Executive Secretary:*
A. O. DeWeese, M.D., 515 E. Main Street, Kent, Ohio

*Treasurer:*
Warren Southworth, Dr. P.H., University of Wisconsin, Madison 6, Wisconsin

*Comptroller:*
Madeline Broderick, 515 E. Main Street, Kent, Ohio

*Editor:*
Delbert Oberteuffer, Ph.D., 337 W. 17th Ave., Ohio State University, Columbus 10, Ohio

### GOVERNING COUNCIL

*Term Expiring 1961*

Leo Feichtner, M.D., Albany, New York
Elsa Schneider, M.A., Washington, D. C.
Rose Gutman, D.D.S., Albany, New York
W. K. Streit, M.A., Cincinnati, Ohio
Dorothy Tipple, S.N.T., Albany, New York

*Term Expiring 1962*

Mildred Doster, M.D., Denver, Colorado
Perry Sandell, M.Ed., Chicago 11, Illinois
H. S. Hoyman, Ed.D., Urbana, Illinois
Helen Watson, R.N., Hartford, Connecticut
May Hare, M.A., Topeka, Kansas

*Term Expiring 1963*

Adele Brown, M.D., Oswego, New York
Lloyd Richards, D.D.S., Berkeley, California
Florine Thomason, R.N., Richmond, Virginia
Mildred Coyle, R.N., M.A. Harrisburg, Pennsylvania
Charles Pemberton, M.D., Houston, Texas

*By Special Vote of Governing Council*

J. A. Myers, M.D., Minneapolis, Minnesota

*Past Presidents, Ex-Officio*

All active past presidents are voting members.

*Affiliated Associations*

American Association for Health, Physical Education and Recreation — William H. Cresswell, Jr., Ed.D.
New York State Dental Hygiene Teachers Association — Mrs. Mary Hutton, D.H.

*Constituent Associations*

Michigan School Health Assoc. — Oscar Stryker, M.D., M.P.H.
California School Health Association — Zoe Conn, M.S.
New Jersey State School Nurses Association — Evelyn Joyce, R.N.
New York Association of School Physicians — C. Adele Brown, M.D.
New York School Nurse-Teachers Association — Virginia Thayer, S.N.T.

THE JOURNAL OF SCHOOL HEALTH
Vol. XXXI JANUARY, 1961 No. 1

## CONTENTS

**Dental Programs in Schools** ..... 3
Melvin L. Dollar

**Community Expectations and School Health Curriculums** ..... 14
Eldon E. Breazier

**President's Page—Raising the Sights of School Health Education** ..... 18
Charles C. Wilson, M.D.

**School Nursing Committee—Report of Sub-Committee on Projects and Studies** ..... 19
Pauline R. Carroll, Chm.

**Responsibilities of School Physicians** ..... 21
R. L. Bonvechio, H.S.D. and D. A. Dukelow, M.D.

**News Notes of Interest** ..... 30

**A Physician and a Guidance Counselor Look at the Problem of Juvenile Delinquency** ..... 33
James W. McKenna and Albert N. Meyerstein, M.D.

**The Future of School Nursing** ..... 37
Dorothy C. Tipple, R.N.

**Old Ways of Meeting New Problems** ..... 38
Sister Margaret, Steelton, Pa.

THE JOURNAL OF SCHOOL HEALTH

THE AMERICAN SCHOOL HEALTH ASSOCIATION
Published monthly, except July and August, at Columbus, Ohio

*Editor*
DELBERT OBERTEUFFER, Ph.D.
337 West Seventeenth Avenue
The Ohio State University
Columbus 10, Ohio

*Assistant to the Editor*
CAROLE L. WRIGHT

*Executive Secretary*
A. O. DeWEESE, M.D.
515 East Main Street
Kent, Ohio

SUBSCRIPTION RATES TO THE JOURNAL
Membership dues, $4.00 including Journal; Single copies 50c, send payment with order

*No part of any article appearing in this issue may be used or reproduced in any manner whatsoever without written permission of the Editor—except in the case of brief quotations embodied in the article or review.*

Second Class Postage Paid at Columbus, Ohio

Printed by THE SPAHR & GLENN COMPANY
50 East Broad Street Columbus 15, Ohio

## REPRINTS

Reprints are available in lots of 100 or more and must be ordered within twenty (20) days after issue of the *Journal* in which the article appears. Prices are dependent on the length of the article, including space occupied by cuts and other illustrations.

| No. of Pages | 2 | 2–4 | 5–8 | 9–12 |
|---|---|---|---|---|
| 100 copies | 16.46 | 25.66 | 43.99 | 58.65 |
| Add'l. 100's | 1.46 | 2.60 | 3.33 | 5.26 |

Address all inquiries concerning reprints to:

**THE SPAHR & GLENN COMPANY**
**50 East Broad Street**
**Columbus 15, Ohio**

★ ★ ★

## CHANGE OF ADDRESS

Send your new address at least 4 weeks before the date on which it is to become effective, to

The Journal of School Health
515 East Main Street,
Kent, Ohio

Please send old address with the new, enclosing, if possible your address label. Addresses must include zone number.

★ ★ ★

## MEMBERSHIP APPLICATION AND JOURNAL SUBSCRIPTION

**American School Health Association**

I, ....., hereby apply for membership in the American School Health Association and enclose $4.00 for annual membership dues, including a year's subscription to the Journal of School Health.

Date..... (Signed) .....

..... .....
Official Position Address

.....

Date.....

Please fill out and send with check to A. O. DeWeese, M.D.,
Executive Secretary, 515 East Main Street, Kent, Ohio.

**Members of three years' standing are eligible for Fellowship—dues $8.00**

THE JOURNAL OF SCHOOL HEALTH

*Devoted to the interests and advancement of school health service and instruction. Your participation by membership is solicited.*

Vol. XXXI January, 1961 No. 1

# DENTAL PROGRAMS IN SCHOOLS

MELVIN L. DOLLAR

*Dental Health Section, Survey of Dentistry*

PERRY J. SANDELL

*Director, Bureau of Dental Health Education, American Dental Association*

Almost everyone in the health field agrees that basic improvements in the level of dental health can be realized only if all children receive adequate dental care from the time their first teeth erupt. In no other situation is the old saying "A stitch in time saves nine" more applicable. Unless the first pit cavities are filled, an inevitable sequence follows which increases dental needs almost geometrically. From pit cavity to pulp involvement to abscess to tooth loss often is a short course. After tooth loss, displacement of adjoining and opposing teeth and ultimate loss of several teeth may follow quickly. There is general agreement that the best way to prevent the troublesome accumulation of dental defects characteristic of the present adult population is to treat oral disease in its incipiency.

The record shows, however, that currently there is wide-spread neglect of the oral health of children. Only ten percent have ever visited a dentist before their fifth year of life. Approximately half of all three-year old children have one or more carious teeth. By the time youngsters reach school age, they have an average of about three decayed teeth. At sixteen years of age they have seven or more defective teeth. Many of today's adolescents already are doomed to become dental cripples.

Whatever the causes of neglect of the dental health of children—apathy, ignorance, inability to pay for care—the results point to the need for assistance to parents in the supervision of the dental care of their children. The dental profession, the health departments, the schools and other agencies have been working actively for several decades to provide this assistance. Many of these agencies recognize that their efforts must be increased if more than a dent is to be made in the problem.

The dental health program for the school age child is divided into two parts—dental health education and dental service.* The schools generally accept the primary responsibility for health education, including dental health education. A high percentage of the elementary schools and many secondary schools therefore provide some instruction in dental health.

With respect to responsibility for dental service programs, however, there is wide divergence of opinion. Many school administrators believe

*For purposes of this paper dental service includes dental inspections or examinations, oral prophylaxis, topical application of fluoride solution and dental treatment.

that the sole business of the schools is education and that health care does not come within the scope of the schools. Others are convinced that the schools have a broader purpose and should provide as many health services as feasible. On the other hand, some public health officials contend that all dental service programs should be under their jurisdiction. In many communities, however, budget limitations have prevented the health departments from taking the initiative in developing dental service plans for children. As a result of the default of the health departments, some schools have needed to institute such plans themselves.

### *Survey of Dental Programs in Public, Private and Parochial Schools on the Elementary and High School Levels*

The measure of success of efforts to stimulate interest in dental health programs, as well as an indication of the variety of types of programs, is brought out in a study made of school practices by the Survey of Dentistry. This study, made in the fall of 1959, included public, private and parochial schools on both the elementary and the secondary school levels. The purposes of the survey were to determine how many schools have such programs, to obtain some measure of their content and scope and to determine whether there are significant variations in the practices of schools with respect to dental health in the different geographic regions and in communities of various sizes. Questionnaires were sent to a sample of 9,500 elementary schools and high schools. The sample was selected on a random basis from lists of schools provided by the National Education Association. Some 3,266 usable questionnaires were returned.

The distribution of the questionnaires returned, when compared with the distribution of the total population, indicates that a representative sample was obtained. The New England states and the Southwest and the Far West were very closely represented in the percentage of returns. The Middle East and Southeast were somewhat underrepresented. The Central and Northwest were somewhat overrepresented. The returns also represented closely the percentage distribution of the population according to size of city except in the smaller communities (under 2,500 population). The smaller communities are overrepresented; the communities over 1,000,000 population are underrepresented.

Two-thirds of the schools participating in the survey were elementary schools. Approximately one school in nine (11.5 percent) was an elementary and high school combined, while one school in fifteen (6.6 percent) was a junior high school. Approximately one school in six (17.3 percent) was a high school only. By far the majority of the combination elementary and high schools were in communities of less than 5,000 population.

One caution should be exercised with respect to the entire sample. *It is probable that schools having dental programs were more likely to respond than schools not having programs. There is no way to determine a weight for this bias, but in general it would be expected that the percentage of schools having dental programs is overstated.*

### *Dental Health Education and Dental Service Programs*

The teaching of some dental health education in elementary, junior high and high schools in the United States is almost universal. More

than nine out of every ten of the schools returning the study questionnaire reported that they have such a program. Somewhat more surprising is their report that three out of every four have some kind of dental service program.† Almost all of the schools reported having an educational program, a service program or a combination of the two. Actually, three out of every four reported having both an educational program and a service program, one out of every five reported having an educational program only, but only two out of every one hundred reported having a service program only.

The practices of the schools in the seven major geographic areas are fairly similar with respect to the inclusion of dental health education in their programs. The New England area is low, with only 84 percent of the schools reporting dental health education programs. The remaining six areas show only minor differences ranging from 90 percent in the Southwest to 96 percent in the Far West.

### *Size of Community and Dental Programs*

Dental health education is a part of the program of schools in communities of all sizes. While a somewhat lower percentage of the schools in smaller communities reported a dental health education program, the differences are not great. In communities with populations of less than 1,000, some 89 percent of the schools reported educational programs. The percentage increases gradually as the size of the community increases, reaching 95 percent among communities with 10,000 population. Larger communities reported about the same percentage, varying from 95 to 97 percent.

There are greater differences among the schools with respect to dental service programs. Among the smallest communities only a few more than half (54 percent) reported having any kind of dental service program. The percentage of schools having such programs increases with the increasing size of community, reaching 82 percent in communities of 10,000 to 25,000 population and more than 90 percent among communities of 100,000 or more. More than 90 percent of the schools in even the smallest communities have either educational or service programs. From 96 to 98 percent of the schools in communities of 5,000 or more have one type of program or the other, or both.

### *Dental Programs of Elementary, Junior High and High Schools*

Almost all elemenatry schools (99.1 percent) report that they have either a dental health education or a dental service program. Some 84 percent have both types of programs. One school in seven reports an educational program only. At the junior high school level, also, virtually all schools have some kind of dental health program (98 percent), but only three-fourths have dental service programs. The schools that combine elementary and high school grades report somewhat fewer dental health education programs (94 percent), and only two-thirds report dental service programs. Among senior high schools, as might be expected, interest in dental programs drops still farther, with some eight out of ten schools

†A dental service program may include only one or it may include several types of services.

reporting some type of educational program (83 percent), and a few more than half reporting that they provide some dental services (55 percent).

### *Who Teaches Dental Health in the Schools?*

The responsibility for teaching dental health education has been assigned to several different people connected with the school. In a great many schools several people cooperate to present different aspects of the subject. The person upon whom the major responsibility falls, however, is the regular classroom teacher in the elementary schools.

### *Classroom Teacher*

Four out of every five schools that answered the questionnaire reported that the regular classroom teachers are responsible for dental health education. This practice is quite uniform among schools in communities of all sizes with the exception of the very largest cities, where only two out of three schools (64 percent) reported that their classroom teachers were responsible for the subject. Doubtless this is due to the fact that the largest cities employ more specialized teachers, e.g., health and physical education teachers, dental hygienists and others. With the exception of the cities with populations of more than 1,000,000, the practices with respect to using the classroom teacher among cities of all other sizes are very similar, ranging from 76 percent in the smallest communities to 83 percent in communities with populations between 100,000 and 250,000.

### *Dental Hygienist*

The dental hygienist as a member of the school teaching staff is still rare. Only 4 percent of the schools report having full-time hygienists on their staff, and only 12 percent report the employment of part-time hygienists. Fewer than one school out of a hundred in the smallest communities has a full-time hygienist, and only about six out of every hundred in the larger communities employ a full-time hygienist. In communities under 50,000 population, from 2 to about 10 percent report part-time hygienists on school staffs. Among communities over 50,000 population the percentage utilizing hygienists ranges between 15 and 30 percent.

### *Dentists*

A few more than one school in 20 report that dentists visit the school and participate in the teaching program. This practice is quite uniform among communities of all sizes. All but the very largest cities fall within a range of from 4 to 8 percent reporting this practice. In cities with more than a million population some 15 percent of the schools report that dentists participate in their program of dental health education.

### *School Nurse*

The school nurse is second only to the classroom teacher as the person responsible for teaching dental health in the schools. More than two schools out of every five report that the school nurse teaches dental health. Since fewer schools in smaller communities employ nurses, in communities with populations of less than 1,000 only one school in five reports having a school nurse as a dental health education teacher. This

percentage rises with increasing size of community to the point where two schools out of three, in cities with populations between 100,000 and 250,000, report the school nurse teaches dental health. This percentage diminishes in the largest cities because their school systems employ a wider range of special teachers and the load is distributed among them.

It is presumed that the nurse supplements what is taught by the classroom teacher.

### *Special Health Teachers*

Specialized health teachers are employed in only a small percentage of the schools and usually in the secondary school only. Only 6.5 percent of all schools report that dental health education is taught by special health teachers. This average is fairly typical of the percentages reported from communities of all sizes. The smallest communities report 4.6 percent of their schools utilize special health teachers to teach dental health as compared with 9.5 percent of the schools in communities with populations between 500,000 and 1,000,000.

The physical education teacher is the third person in the school system most commonly called on to teach dental health. Almost one-fourth of the schools (22 percent) report that the physical education teacher participates in this teaching. Apparently, the schools in even the smallest communities frequently employ people in this category because they report that in 26 percent of their schools dental health education is taught by physical education teachers. Again, this practice is fairly uniform among communities of all sizes.

### *Summary*

In general, it may be said that the main burden for the teaching of dental health falls upon the elementary classroom teacher, the school nurse and the physical education teacher. The percentage of schools utilizing specialists in the health field to teach the subject is relatively small. Since the teaching of any subject can be no better than the preparation of the teachers, the need to focus attention on specialized training in dental health for the classroom teacher should be realized.

The similarity in the practices of schools in the smallest to the largest communities is striking. The pattern of assignment of responsibility for teaching dental health shows few local variations from the national average.

## *How Dental Health is Taught*

### *Part of a Formal Course*

Among all schools reporting from all parts of the United States three out of four reported that dental health is taught as part of a formal course in health and hygiene. This pattern appears to be consistent among communities of all sizes. With the exception of the New England states, in which only 58 percent of the schools report that dental health is taught in this way, the regions vary little from the national average of 75 percent.

### *Techniques or Devices Used to Teach Dental Health*

Regular classroom teaching procedures are supplemented by a number of special techniques or devices.

*Toothbrush drill.*—A teaching device used fairly widely in the lower

grades is the toothbrush drill. A little more than one school in three (36.8 percent) use this teaching device. The uniformity of this practice among schools in communities of all sizes is marked.

*Daily record of toothbrushing in the home.*—The maintenance of records in class of the children's report on their daily toothbrushing habits, a teaching device no longer approved by many educators, is still employed in one school out of four. As for the teaching practices already reviewed, the percentage of schools maintaining daily records of toothbrushing in the home is approximately the same in communities of all sizes and in all geographic areas.

*Dental health week.*—A teaching device designed to bring a sharp focus of attention on dental health among students of all ages, and frequently the attention of their parents as well, is the observance of a dental health week. This way of highlighting the importance of dental health has long been fostered by the American Dental Association. The setting aside of a week in which special attention is given to this important health need has become a significant part of school health programs. It provides an opportunity to direct the attention of students to dental health and to arouse their enthusiasm for weeks in advance of the special event by having them prepare exhibits, posters and essays and practice for plays portraying health practices.

Two schools out of every five (42 percent) reported that they put on dental health week programs. A much wider range of practices among schools in communities of different size with respect to this teaching device is reported than was reported with respect to other teaching devices. Among the smallest communities only one school in five (22 percent) reported holding dental health week programs. This percentage increases consistently with increasing size of community, reaching a maximum of two schools out of three (63 percent) among communities having a population of between 500,000 and 1,000,000.

The practice of conducting a dental health week varies widely among the seven geographic areas also. Southwest, Northwest, Central and Southeast regions reported that from 31 percent to 37 percent of their schools hold dental health weeks. The New England region reported 44 percent, the Far West region reported 48 percent, and the Middle East region reported 55 percent of their schools hold dental health weeks.

The dental health week is growing in popularity among the schools. It is proving to be one of the most effective means of stimulating interest in dental health.

*The use of films and exhibits in teaching dental health.*—More than two schools out of three (69 percent) report that they use films and exhibits in teaching dental health. There are some differences in the practices of communities of various sizes in the use of these teaching materials—the smaller the community the fewer of these materials are used.

*The use of leaflets, pamphlets and other literature on dental health as a teaching aid.*—Two schools out of every three (64 percent) report using these aids in teaching dental health. This practice, too, is quite uniform among communities of all sizes. The smaller communities report only half of their schools using these materials, but all communities above that level report similar practices in their use.

*Summary*

The most striking finding revealed in the report on the teaching of dental health is the remarkable uniformity of practices among schools in all sizes of communities and in all geographic areas.

*Dental Services*

The area of concern of schools for the welfare of the child goes beyond the development of the mind. This is clearly indicated by the fact that three out of every five schools (60.4 percent) provide some dental service for some of their children. While there is disagreement about whether this is a proper function of the schools, it is evident that a majority of the schools recognize that the dental health of children is neglected and that someone must take the responsibility of doing something about it. Even in the smallest communities almost half (44.3 percent) of the schools make provision for some dental service to their children. In communities with populations of 100,000 to 250,000 three-fourths of the schools report that they provide dental service for some or all of their children.

*Oral Examinations*‡

In more than half of the schools (57.3 percent) oral examinations are given to the students. The examination is given by a dentist in more than half of the schools that provide this service (51.6 percent). However, in one school out of every four (26.8 percent) all or part of the examinations is given by hygienists. In a third of the schools (31.1 percent) oral examinations are given by the school nurse. The examinations are given by physicians in one-tenth of the schools and by the classroom teacher in one-twelfth of the schools.

*Size of community and practices in providing oral examinations.*—As would be expected, fewer schools in smaller communities than in larger cities provide oral examinations. In the smallest communities only a few more than one-third of the schools (37.4 percent) provide this service. With increasing size of community the number of schools providing oral examinations increases, and in the schools of cities with populations between 100,000 and 250,000 three-fourths provide this service. The utilization of the dentist, the hygienist, the nurse, the physician and the teacher to provide this service follows a fairly uniform pattern in communities of all sizes.

*Where oral examinations are given.*—In the vast majority of the schools (88.2 percent) providing the service, oral examinations are given within the schools. Only 7 percent of the schools report that their oral examination program is conducted in the offices of private practitioners. This practice is fairly uniform among communities of all sizes.

*Practices in charging for oral examinations.*—Oral examinations are given free by the dentists in the vast majority of the school programs. Only one school in twenty reports any charge at all (5.5 percent) to children whose parents find it difficult to pay, and most of these (3.6 percent) report that only token charges are made. A slightly higher percentage

‡No attempt was made to determine the thoroughness of the examinations. It is likely that these were inspections rather than examinations since most are made in the school.

of schools reports that this service is not free to children whose parents are able to pay. The practices regarding charges for oral examinations appear to be fairly similar among communities of all sizes. The fluctuations in the practices that are observed among schools do not appear to be related to the size of the community in which the schools are located.

*Referral For Dental Service*

The dental service program most commonly found in the schools is the referral of children either to their own dentist or to some community facility for oral examination and dental treatment, if needed. Generally, this is done in an organized way, and the program is supervised by the classroom teacher, the health teacher, the hygienist or the physical education teacher.

Almost three out of every four schools (70.8 percent) reported that they conduct a referral program. The practice is much less common in smaller communities than it is in the larger cities. Among schools in the smallest communities a few less than half (48 percent) of the schools reported that they have a referral program. The proportion of schools having this program increases with size of community, reaching a peak of 86 percent among communities having a population of from 250,000 to 500,000.

By far the most common type of program of referral for dental service carried out by the school is one in which only those children needing care as indicated by inspection are referred to a dentist. About half of the schools (50.8 percent) reported this limited type of referral service. This practice varies among schools located in communities of varying sizes, beginning at 31.5 percent in the smallest communities and increasing to 67 percent in communities with populations between 250,000 and 500,000. There are variations in the practices followed in various sections of the country, with 64 percent of the schools in the Southeast region reporting that they have such a program as compared with 85 percent of the schools in the Middle East so reporting.

Only one school in eight (11.8 percent) reported referral programs in which all children are included. This practice is the same in communities of all sizes except those having populations of more than a million. Almost one school in five (18.5 percent) in these communities reports that all children are referred to the dentist.

*Follow-up with parents.*—More than half of the schools (55.4 percent) reported that they follow up after referral to determine whether the child actually did go to the dentist. This practice varied in schools in communities of different sizes. Referrals are followed up among only one-third of the schools in the smallest communities, but this percentage increases to more than three-fourths in the largest communities. Almost half of the schools actually get in touch with the parents if the child fails to return a report from the dentist showing that his dental needs have been cared for. Like the referral program itself, this practice is less common in small communities.

*Percent of dental work reported as completed.*—In answer to a question regarding the percentage of children returning a report showing all dental work completed, about one-fifth of the schools replied that fewer than 50 percent of the children returned reports. Another one-fifth replied that

between 50 and 75 percent of the children returned reports showing work completed, and one-fifth replied that from 75 to 100 percent of the children do so. Unfortunately, about two-fifths of the schools were unable to provide an estimate.

It is obvious that programs for referring children to dentists are firmly entrenched in the school system, particularly in the large cities. This assistance to the parents in the health care of their children has great importance to the health of future generations. Not only does it have the effect of encouraging care for the children of uninformed parents who are unaware of their needs but also it assists well-meaning but careless parents who know the importance of health care but fail to carry out their parental responsibility.

### *Prophylaxis*

Among the schools participating in the survey one in four (23.9 percent) provides prophylaxis service. As might be expected this service is less common among schools in small communities than in large cities. In the smallest communities only one school in seven (14.6 percent) provides prophylaxis service for its pupils. This proportion increases fairly consistently with the increasing size of community, reaching a maximum of one school in three (33.9 percent) which provides the service among communities with populations between 500,000 and 1,000,000.

*Charges for prophylaxis.*—Among the schools providing prophylaxis to their pupils the majority of them make no charge. Three-fourths (72.2 percent) make no charge to the dentally indigent, and three-fifths (60.2 percent) make no charge to any of their pupils. About one school in five or six makes a token charge for the service, and a scattered few charge the regular fee that prevails in the community. The practices regarding charges for prophylaxis appear to bear little relationship to size of community.

*Where prophylaxis services are given.*—More than half of the schools providing prophylaxis services (56.2 percent) do so in their own clinics, while one-fourth of them (25.2 percent) send the children to the offices of private dentists. About one school in ten (8.7 percent) reports that the service is provided in other facilities, probably in health departments or dental school clinics. In the smaller communities fewer schools have the facilities for providing this service.

Prophylaxes provided in connection with school dental programs most commonly are done by dentists (47.4 percent). Hygienists are utilized in more than one-third of the programs (36.2 percent). Unfortunately, on one reply in six (16.4 percent) this question was not answered.

### *Topical Fluoride*

Topical fluoride applications are given in only one school in ten (10.4 percent). This ratio is fairly consistent among schools in communities of all sizes. Almost two-thirds of the schools (61.0 percent) providing the service do so without charge to the dentally indigent, and two-fifths (43.2 percent) give the service without charge to all pupils. Most of the schools that charge the dentally indigent make only a token charge, while one school in five makes a token charge to children who can pay, and the same number charge this group the full fee prevailing in the community. Among schools that provide the service the majority give

the service in school facilities (68.2 percent). Slightly more of the schools report that the service is given by hygienists (46.9 percent) than by dentists (41.6 percent).

### *Fillings*

One school in four (25.4 percent) reports that it provides fillings for some of its pupils. This practice, in common with all other direct dental services, is found less frequently in small communities. Only one school in eight (13.6 percent) in the smallest communities reports this service as compared with almost one out of every two (44.0 percent) in communities with populations of from 250,000 to 500,000.

*Charges for fillings.*—Among schools providing fillings to their pupils more than two-thirds make no charge for the service to dentally indigent children, and one-third (36.0 percent) make no charge to any of the pupils. About one school in seven (14.1 percent) reports a token charge to dentally indigent children for this service, and one school in ten reports charging the full fee common in the area for the service. As was found with reference to other services, there appears to be no relationship between the size of community in which the school is located and the practices followed with reference to charging for this service.

*Where fillings are provided.*—Among schools providing fillings almost half (47.1 percent) give the service in school clinics. More than one-third (36.4 percent) of the schools report that the service is provided in the offices of private dentists. Approximately one school in seven reports that fillings are provided through some other facility, doubtless health department clinics or other public and private welfare clinics. Schools in smaller communities are less likely to have dental clinic facilities of their own, and in the smallest communities only one school in three that provides fillings does so within its own facilities. By contrast, more than two-thirds (69.8 percent) of the schools reporting this service in cities with populations ranging between 500,000 and 1,000,000 provide fillings through their own clinic facilities.

### *Financing Dental Service Programs*

Who pays the cost of providing dental services in the schools, where such a program is in existence, is an important question. The survey reveals that several agencies participate in paying for dental care in school programs and that no one agency predominates. Among the schools replying to the questionnaire, slightly more than one school in five (20.7 percent) indicated a dental service program financed by the school board. Approximately the same proportion (17.8 percent) indicated that the health department financed the dental service program in the school. A smaller, yet significant proportion, indicated that the local dental society (6.6 percent) or the Parent-Teacher Association (7.2 percent) financed the dental program. One school in six (16.1 percent) indicated some other source of financing its dental program; doubtless many of these represent programs financed by parents of students.

### *Leadership in Dental Health Education Programs*

In order to determine the role of the leader in these programs the question was asked whether, in the beginning of the dental health educa-

tion program in the school, some one or more people had provided outstanding leadership in getting it under way. A few more than one-fourth (27.8 percent) of the schools replied that such leadership had been instrumental in getting their programs under way. The person most commonly credited with providing the initiative in starting the program was a dentist. Where such leadership existed, a dentist played a prominent role in a third of the programs. The school nurse was credited with providing leadership in one school in five. Because the questionnaires were filled out by school principals, they were modest in claiming leadership, though they doubtless deserve great credit.

Schools were asked also whether in the current operation of their dental health education programs some one or more persons were providing outstanding leadership. Two schools out of five (39 percent) reported such leadership. Among these schools more than half credited a local dentist. The closest competitor was the school nurse. About one school in five credits her with providing leadership. The dental hygienist follows next and then the Parent-Teacher Association. It must be kept in mind that only a small percent of all schools employs a hygienist. It is probably true that a hygienist plays a leading role in dental health education wherever she is employed.

### *Leadership of the Dental Profession in Dental Service Programs*

In most school dental service programs, the dentist is a central figure if not *the* central figure. The leadership provided by the dental profession in each community has been a major determinant of the status of dental education and service. The future of such programs will depend almost altogether upon the leadership exercised by the profession. Actually, one school in six among those participating in the survey is located in a community where there is no dentist. In fact, among schools in the smallest communities two out of every three reported no dentist in their community. Doubtless this is a major factor in explaining the lag in dental service programs that has been observed among schools in smaller communities.

### *Participation of Dental Society*

Fewer than half of the schools (44.8 percent) indicate that they have a working relationship with the local dental society. One school in seven reports that the dental society provides active leadership in its dental service program. Almost one in four (22.2 percent) reports only casual cooperation from the society, and only one in twenty (4.6 percent) reports no cooperation from the dental society.

### *Participation of Individual Dentists*

More than one school in three indicated that they had the cooperation of one or more dentists, whether or not the organized dental society participated in the school dental service program. A few more than one school in ten (11.2 percent) indicated that individual dentists provided active leadership, while one in five indicated only nominal leadership. Two out of a hundred schools indicated that they received no cooperation from a dentist. A very high percentage of the schools (66.1 percent) did not reply to this question.

### *Conclusions*

Although a majority of schools are conducting dental programs of one kind or another, the fact still remains that the level of dental health of American children is low. It is apparent that the major need is not to introduce dental programs into more schools but to increase the effectiveness of programs now in existence.

Assistance is needed from experts in both the educational and the dental fields to plan educational programs that not only impart information but, more importantly, motivate the child and the parent to utilize such measures as are available to prevent and control dental disease.

Dental societies and educators in every community need to work together to study dental problems of children and youth and to find ways of solving them. All agencies and organizations having an interest in health should be brought together to give assistance and support in planning and conducting a dental health program for school children.

The most desirable solution would, no doubt, be a well planned total health program for the community which would have better dental health as one of its objectives.

* * * * *

## COMMUNITY EXPECTATIONS AND SCHOOL HEALTH CURRICULUMS

ELDON E. BREAZIER,

*Director of Curriculum and Instruction,*
*Lawrence Public Schools, Lawrence, Kansas*

Some light may be focused upon the educator's oft-repeated phrase, "The people don't really want the schools to teach health," by exploring the relationships between what the citizenry sees to be the school's responsibility in health education and the educative program employed by the school in fulfilling what it believes to be this responsibility. Although generalizations having nation-wide applicability cannot be drawn from the studies upon which this article is based, these data do suggest that an assumption that "people don't really want the schools to teach health" will more likely be a false one than not. Further, these data suggest that each local school should help its community clarify the school's role in health education as a first step in evaluating and improving its curriculum in health education.

### *Expectations of Health Education Curriculums*

Authorities in health education have described their views of the role of the school in the health education of its pupils[1], but the committee on

[1]Leslie W. Irwin, Charles D. Merrill, and Wesley M. Station. "Concepts of Healthful Living of Functional Value in the General Education of Elementary School Pupils." *The Research Quarterly*, 24 (December, 1953) 423–441.

Cooperative Committee on School Health Education. *Health Needs of School Children.* American Association of Colleges for Teacher Education, 1954.

James L. Melfetti. "Selecting the Content of a Health Education Course on the Basis of the Needs of Students." *The Research Quarterly*, 26 (May, 1955) 163–169.

Wesley P. Cushman. "Developmental Tasks—A Source of Health Problems." *The Journal of School Health*, 29 (September, 1959) 247–253.

health education of a local school health council decided to ask this question of the parents, teachers, and pupils in a city of 33,000 population in Kansas. It was anticipated that the answers thus obtained would give direction and impetus to the committee's next step—that of evaluating and improving the school's program of health education or of carrying out a program of public education regarding the necessity of adequate health education.

*The Study*

A questionnaire was prepared that asked, "Should the school provide a program of health education that would teach children and youth the facts and practices, appropriate to their age and grade," that relate to each of fifteen areas of health. Respondents were directed to check a "Yes," "No," or "No Opinion" response to each item and were provided space for additional comments.

Questionnaires were sent to each of the approximately 2170 homes supplying the total pupil population in kindergarten through grade six in this city school system. These parents returned 1333 questionnaires, an estimated 61 per cent response. Questionnaires were also sent to the approximately 226 homes furnishing the total eighth grade population. One hundred two, about 45 per cent, of these parents responded.

These same questions were asked of the teachers in the local school system. Seventy-eight of the 119 elementary-school teachers, 38 of the 52 junior-high school teachers, and 43 of the 51 senior-high school teachers responded.

The 256 tenth-grade pupils enrolled in physical education completed this questionnaire during physical education classes and under the direction of their teachers. They were also asked to indicate whether their present knowledge in these fifteen health areas was obtained through the school, the home, a combination of the school and the home, or through other, unidentified sources. Finally, these tenth-grade pupils were asked to indicate the grade-levels at which the basic information of these fifteen health areas should be taught.

*Summary of Findings*

1. It is evident that parents, teachers, and pupils in this Kansas community expect the school to accept some responsibility in the health education of children and youth. The percentage of "Yes" responses on the fifteen items ranged from 61 to 93 for the total parent group, from 58 to 96 for the total teacher group, and from 72 to 84 for the pupil group. However, the study does not clearly indicate the degree of this responsibility.

2. The similarity of the responses of the parents and the teachers is of particular interest since it might be theorized that teachers would be more reluctant to accept responsibility in matters wherein considerable controversy would be expected to exist. However, parents and teachers were in quite close agreement on the areas of sex education (62 per cent and 63 per cent); tobacco, alcohol, and drugs (78 per cent and 72 per cent); and human reproduction (61 per cent and 61 per cent). The greatest disagreement between total teachers and total parents was but nine percentage points on the area of body care.

3. Some differences were found among the two groups of parents. Parents of eighth grade pupils were more concerned with the teaching of

sex education, effects of alcohol and tobacco, patent medicines, and human reproduction. These same differences existed between elementary-school and secondary-school teachers. One might theorize that these differing concerns reflect real differences in the problems encountered by those who work with children and those who work with adolescents.

4. Tenth grade students tend to feel somewhat differently about what is important in health education than do either parents or teachers. They are less concerned with nutrition, rest and sleep, dental hygiene, safety and first aid, and care of eyes and ears. They are more concerned with patent medicines, human reproduction, and sex education. The opinions of tenth grade students are more similar to those of parents of eighth grade pupils than to those of any other group studied.

5. The statements of tenth-grade pupils concerning their sources of health information and knowledge indicate that the school program currently makes major contributions in the areas of body processes, mental health, health services, and community health. These students believe the home and school to have shared in their health education in the other eleven areas.

6. The tenth grade students' choices of the levels (median grades) at which basic topics in the fifteen health areas should be taught are relatively consistent with the recommendations of health education specialists concerning the grade-placement of these topics.

### *Status of Health Education Curriculums*

On behalf of a committee of the Kansas School Health Advisory Council, the writer undertook a survey of the health education curriculums maintained in the elementary schools of Kansas. It was intended that this study should provide the information needed in order to evaluate elementary-school health education in the state.

### *The Study*

A questionnaire was developed to elicit significant information concerning the manner of organization of health education curriculums, the content of health instruction, the availability and extent of use of teaching aids, the responsibility for teaching health, the techniques employed in evaluating pupil learning, and the amount of time given to health instruction. This check-list made provision for indicating the responses appropriate to each of four school levels: Kindergarten, Primary (grades 1–3), Intermediate (grades 4–6), and Upper (grades 7 and 8). The respondents were instructed not to construe physical education, recess, playground activities, health services, etc., as health instruction in completing the questionnaire.

In constructing the sample, it was assumed that the "better" health education curriculums would be those available to the pupils enrolled in the larger schools and that a sample including a majority of all the elementary-school pupils in Kansas would provide a representative sample of the pupils in these larger schools. The sample selected included all the first-class and second-class city school systems plus all those systems enrolling 500 or more pupils. The 218,667 pupils enrolled in the 128 school systems in the sample approximate 68 per cent of the total of 323,175 pupils enrolled in Kansas elementary schools during 1957–58.

Responses were obtained from 69 per cent of the schools queried. The 138,969 pupils reported to be enrolled in the 88 respondent schools represent approximately 42 per cent of the total enrollment in kindergarten through grade eight in Kansas.

### *Summary of Findings*

1. The areas of health found to be included in the curriculums of 34 per cent or more of the elementary-schools responding are food habits and foods, rest and sleep, exercise, body cleanliness, clothing, dental hygiene, visual and aural hygiene, safety and first aid, and posture.
2. In but one instance, that of rest and sleep as a kindergarten topic, did as many as 57 per cent of the responding schools agree concerning the inclusion and grade placement of a topic.
3. Fewer than 24 per cent of the curriculums included the topics of alcohol, drugs, and tobacco; body structure; and mental hygiene. Fewer than ten per cent of the curriculums included the topics of quacks and nostrums, sex education, and human reproduction.
4. One-half of the kindergarten health curriculums provide instruction "only on an incidental basis" and nearly one half of the health instruction in primary grades is based upon teaching units prepared by the classroom teacher.
5. The number of minutes per week devoted to health instruction varied from 10 to 150 in kindergarten to 30 to 300 in the upper grades.

### *Summary and Conclusions*

To the extent that the opinions of parents, teachers, and pupils in one large city in Kansas relative to the responsibility of the school in health education can be taken as representative of the opinions of the State's citizenry in general, strong support exists for the view that elementary-school health curriculums in Kansas tend not to fulfill the expectations of the populace that these schools are meant to serve. These data provide no evidence relative to this assumption of representativeness nor do they permit of generalization to other states or to the Nation. However, the extent to which these parents, teachers, and pupils were in agreement concerning the school's responsibilities in health education and the striking differences between their expectations and the health education curriculums found to exist suggest fruitful areas of exploration and study for all local school-community groups.

While few would suggest that local-community opinion be the sole determinant of the aims and objectives of the local-school health curriculum, equally few would deny consideration of the desires of the local-community in planning that health education program. The more defensible approach to curriculum planning unites the lay point-of-view with the professional point-of-view, using as the catalyst the free and open flow of information, ideas, interests, and concerns. Thorough analysis of the expectation of parents, teachers, and pupils may be expected to provide direction in building health education curriculums, to provide benchmarks for the evaluation of learning and instruction, and, so these studies indicate, to provide support and motivation for those school faculties that would provide the more appropriate and adequate programs of health education for the children and youth of the community.

## PRESIDENT'S PAGE

### Raising the Sights of School Health Education

CHARLES C. WILSON, M.D.
*Yale University,*
*President, American School Health Association 1935–36*

Failure to realize the potentialities of school health education often reflects a limited understanding of its possibilities for improving the present and future health of pupils and for promoting community health. Some teachers consider health education solely a means of encouraging desirable health practices; others look at it as a procedure to help pupils learn facts about physiology and anatomy. These concepts are valid, but they are extremely narrow.

Health education is defined as the provision of experiences that favorably influence "practices, attitudes and knowledge relating to health." The word "practices" indicates concern for helping boys and girls to live healthfully, including the utilization, where necessary, of services of physicians, nurses, dentists, and other health personnel.

Desirable attitudes toward health and healthful living are outcomes of effective health education. Both teaching methods and content should help children and youth recognize health and strength as glorious attributes of human life and as bases for successful accomplishments in work and play.

Concepts of the "knowledge" aspect of health education have undergone many changes throughout the years. Rather than emphasizing the memorization of technical facts relating to anatomy and physiology, as was the practice in the early years of the twentieth century, present-day health education helps pupils understand how their bodies and minds function and enables them to learn how health can be maintained or improved. Such knowledge has real meaning to growing boys and girls and can significantly affect their attitudes toward those organizations and agencies that are engaged in health efforts.

Physicians, public health officials, and others concerned with health consider health education a means of improving community health. Dr. M. G. Candeau, Director-General of the World Health Organization, for example, has stated that, "It is fully recognized to-day that no lasting progress in health work can be achieved without simultaneously undertaking to educate the population in health matters." This viewpoint, one that is shared by many other health workers, reflects the belief that solution to many present-day health problems depends to a great extent on each individual doing what he can to protect and improve his own health. If he is to do a good job, he must be educated in health matters. The foundations for his understanding of health are built during the school years.

The full potentialities of school health education are realized only when all members of the school staff utilize opportunities afforded them for helping pupils learn about health. In the course of their work with pupils, physicians, nurses, psychologists, social workers, lunch room

managers and bus drivers have numerous occasions to make informal comments or statements relating to health. They can present information about a variety of health problems, encourage healthful living and help pupils develop desirable attitudes toward health. Similarly, teachers can make use of many situations arising in classrooms or in the community for stimulating discussion of health matters. Such timely consideration of health topics capitalizes on pupils interests and concerns.

Despite the value of incidental education, such efforts are not sufficient to provide pupils with an understanding of themselves, the ways they can protect their own health and that of others, and the various factors that influence health and well-being. Beginning with the intermediate grades and up through junior and senior high school, there is need for planned, systematic health education. This can be adapted to the developmental characteristics of boys and girls of different ages, utilize their interests and curiosities, and help them gain understanding of various aspects of health. The program will include projects or units relating to such matters as growth and development, nutrition, safety, emotional health, disease prevention, functions and care of the body, exercise, rest and sleep, first aid, community health and dental health.

A program of this nature is broad and comprehensive. It requires careful planning so that it becomes an integral part of the total curriculum. It requires well-prepared teachers working cooperatively with those concerned with other aspects of the school health program

It is particularly important that teachers recognize their key role in all aspects of school health efforts. Good health education stems from the alert minds, warm hearts and skilled hands of well-prepared teachers.

Recognition of the multiple goals of health education, participation by all members of the school staff, and improved preparation for teachers are ways by which the contribution of education to individual and community health can be increased.

* * * * *

## SCHOOL NURSING COMMITTEE

### Report of Sub-Committee on Projects and Studies

PAULINE R. CARROLL, *Chairman*

*October, 1960*

The Sub-Committee on Projects and Studies was activated during the 1959 Annual Convention in Atlantic City, New Jersey. Thirteen persons in the field of school nursing representing eleven states volunteered to help with the new venture. Every committee member participated in the work of the committee and contributed to this report. Nineteen projects relating to seventeen different topics were forwarded to the chairman from nine states. Each committee member prepared briefs on these projects.

To this outstanding committee, the chairman expresses sincere appreciation for the time, effort and splendid contributions of each member.

Subsequent pages will give a brief overview of projects carried on by school nurses throughout the country. All of these projects should have

real value in the planning, interpretation, and evaluation of school nursing services.

Communications concerning details of these projects should be directed to the appropriate author or agency.

Summary of Projects and Studies

*Alabama*

1. *Vision Screening Program.* Department of Child Health, Birmingham Public Schools, Birmingham, Alabama. Miss Bettie Gross, 2015 Seventh Avenue, North, Birmingham, Alabama. A procedure for the implementation of a new program on vision.

*California*

2. *An Analysis Of Four Procedures For The Administration Of Medical Examinations.* School Health Education Committee, Orange County Schools, California. Miss Barbara Osborne, 1104 West 8th Street, Santa Ana, California. A research project for a doctorate.

*Connecticut*

3. *Report To Parents Of Dental Inspection.* Norwalk Public Schools, Norwalk, Connecticut. A three-way card system to facilitate a dental program.

*Missouri*

4. *Evaluation Of The Role Of The School Nurse.* Board of Education, Ladue, Missouri. Miss Lottie M. Harrison. A one-page interpretive report designed to improve the service.
5. *Future Nurses Club.* McKinley High School, St. Louis 4, Missouri. Mrs. Frances D. Lavin, 3272 January Street, St. Louis 9, Missouri. A description of the organization of a club for career counseling.
6. *Growth Screening Program.* University City Public Schools, University City, Missouri. Miss Helen Lynch. A unit on growth and development integrating nursing service in the educational program.
7. *School Camping.* University City Public Schools, University City, Missouri. Miss Helen Lynch. An outline of the school nurse's responsibilities before and during school sponsored trips.
8. *Health Examinations By Family Physicians.* University City Public Schools, University City, Missouri. Miss Helen Lynch. A sample of material for use in group teaching to promote regular medical supervision where examinations are not required by the school.

*New York*

9. *Your Child—His Interests, Needs, And Capacities.* East School Health Council, East School, Long Beach, New York. A pamphlet designed for parents of all school-age children.
10. *Family Life Education For Girls.* Horseheads Central School District, Horseheads, New York. Miss Kathleen Stuart. A sample of cooperative program planning by teachers, parents and the school nurse.
11. *Tuberculin Testing Program.* New Cassel School, Westbury, Long Island, New York. Miss Marian O'Shea. A description of a school-community planned survey for Tuberculosis.
12. *Your Child's Health—A Shared Responsibility.* Wickshire School, New Hyde Park, Long Island, New York. Mrs. Kay Ribuffo, 608 Stewart Avenue, New Hyde Park, Long Island, New York. Suggestions for planning a parent-teacher program meeting.
13. *School Assembly On Health.* Wickshire School, New Hyde Park, Long Island, New York. Mrs. Kay Ribuffo, 608 Stewart Avenue, New Hyde Park. Long Island, New York. A student production to interpret school health sponsored by the faculty and school nurse.
14. *Health Service History.* Union Free School District No. 9, New Hyde Park, Long Island, New York. Dr. Lester Peck, Principal. A review of health services in one school district over a period of years—1955.

*Pennsylvania*

15. *Educational Program Report. Growth And Development Of The School Nursing Service.* Abington Township School District, Abington, Pennsylvania. Mrs. Pauline R. Carroll. Two annual reports to the Superintendent of Schools which provide a systematic plan for reporting, analyzing, evaluating and developing the program, service and staff.

*Rhode Island*

16. *Your Child Goes To School.* Warren A. Sherman School, Warwick, Rhode Island. A booklet of policies for parents of beginners in school.

*Texas*

17. *Dental Project.* Dallas Independent School District, B. F. Darrell School, Dallas, Texas. Miss Gladys Johnson. An elementary classroom program planned by the school nurse and teacher.
18. *Health Education In Los Fresnos Schools.* Los Fresnos School District, Los Fresnos, Texas. A school nurse participates in curriculum development, and the implementation of a program in health education in senior high school.

*Washington*

19. *Health Teaching In Dysmenorrhea.* Tacoma Public Schools, Tacoma, Washington. Mrs. Anna Utgaard, 2252 West Boulevard, Tacoma 66, Washington. Informal approaches to the hygiene of menstruation.

Sub-Committee on Projects and Studies

MRS. PAULINE R. CARROLL, *Chairman*
Abington Township School District
Abington, Pennsylvania

MISS BETTIE GROSS, *Chief School Nurse*
2015 7th Avenue, North
Birmingham 5, Alabama

MRS. BESSIE D. AMISS
313 Winthrop Drive
Alhambra, California

MISS EVELYN MORGAN
3020 Monroe Street
Denver 5, Colorado

MRS. JOAN M. SNELGROVE
220 Nassau Road
Stratford, Connecticut

MRS. GRACE BAKER
Brandywine Senior High School
Wilmington, Delaware

MRS. MILDRED KAUNE
815 Pine Tree Lane
Webster Groves 19, Missouri

MISS PEGGY O. VAUGH
University City Public Schools
University City 5, Missouri

MISS ALICE COOGAN
East School, Neptune Boulevard
Long Beach, New York

MRS. MARION LANDGRAF
81 Hickory Hill Road
Tappan, New York

MISS JUNE ROLISON
R. D., P. O. Box 302
Perryopolis, Pennsylvania

MRS. JUNE DULKIE
84 Canna Street
Warwick, Rhode Island

MRS. RAYE PEGUES
Dallas Independent School District
Dallas, Texas

MRS. ANNA UTGAARD
2252 West Boulevard
Tacoma 66, Washington

* * * * *

## RESPONSIBILITIES OF SCHOOL PHYSICIANS*

R. L. BONVECHIO, H.S.D.†

D. A. DUKELOW, M.D., *Chairman*

The Committee on School Physician Responsibilities designed this study to determine the desirable recommended responsibilities for school physicians in order that they might better understand their role in the school health program. The great variety of responsibilities assumed by

*This is a report of the Committee on School Physician Responsibilities to the American School Health Association and is submitted to the Association by the Committee. San Francisco—1960.

†Dr. Bonvechio was a graduate student in the Department of Health and Safety of Indiana University when he assisted the Committee by developing the details of this study in the course of preparing a doctoral dissertation for the Degree of Doctor of Health and Safety.

school physicians has been of concern to all school personnel. An inquiry into current practice and desirable practice seemed to be one way of more adequately defining the physician's role in the school.

### *Procedures*

This study involved: (1) obtaining statements of school physician responsibilities from various sources; (2) developing an instrument with a rating scale and a check list for evaluating the suggested responsibilities, their practicality and the extent of their use in current practice; (3) rating the responses on the returned instruments; and (4) organizing and analyzing the data received from the completed instruments.

A tentative questionnaire listing responsibilities taken from textbooks, journals, research studies, committee reports, conference publications, pamphlets, talks and discussions in the field of health and from the opinions of professional people was developed by Dr. Bonvechio. When it had been evaluated and refined by the members of the committee and several consultants, Dr. Dukelow, Chairman of the Committee, had it prepared for printing and mailing. It was distributed in November 1959.

The questionnaire included 95 statements of possible responsibility grouped into 11 areas. Each of the 95 responsibilities was subjected to: (1) a nine point rating scale for indicating the participants degree of agreement with the responsibility as stated; (2) a check list for stating the practicality of the responsibility; and (3) a check list for stating the use of the responsibility in the current practice of school physicians.

The questionnaire was mailed to the 907 Fellows of the American School Health Association and 80 school administrators selected by the American Association of School Administrators.

Usable answers were returned by 468 Fellows and 46 school administrators. In addition, 50 people sent letters explaining or justifying why they could not participate in the study, 40 returned incomplete or improperly completed questionnaires, and 40 returned their questionnaires too late to be included in the analysis. There were, therefore, 644 (65%) responses out of 987 requests, 514 (52%) of which were usable. Study participants included 152 physicians, 4 dentists, 145 nurses, 81 health educators, 77 school administrators, 17 classroom teachers and 38 in the category of others.

The collected data in this study were punched into IBM cards at Indiana University's Research Computing Center and processed through a variety of calculations. All of these data calculations are tabulated and reported in Dr. Bonvechio's doctoral dissertation based on this study. Only selected analyses of these data are included in this report.

### *Findings*

1. Of the 95 responsibilities listed in the form, 81 were rated high and practical by the study participants, on the basis of a mean high rating of 6.5 to 9.0 on the nine point agreement scale, and being rated "practical" over 50 percent of the time by all participants. These responsibilities, in rank order within the eleven selected areas, which in turn are presented in their rank order, are here presented. Each statement of responsibility is followed by its rank order in the total list of 95 responsibilities.

COORDINATION:

"The school physician:

"works closely with school nurses to facilitate coordination of the health service program. (1)

"participates in or consults with existing local medical societies. (8)

"participates in public health programs to promote the coordination of school and public health programs. (9)

"participates in or consults with existing school health committee. (22)

"works closely with dentists and dental associations in coordinating programs of common interest. (27)

"participates in or consults with existing community health councils. (28)

"assists the administrator or guidance counselor in coordinating school health services with pupil needs. (37)

"assists in the creation and/or development of health committees and councils. (50)

"participates in coordinating the school health service and instruction program." (58)

PREVENTION OF DISEASE:

"The school physician:

"assists and cooperates with school and public health officials in the exclusion and readmission policies in the communicable disease program. (6)

"sees that written policies are developed, distributed, interpreted and followed in the disease prevention program. (16)

"is responsible for the method of prevention and control of communicable diseases." (66)

CONSULTANT:

"The school physician:

"serves as a medical consultant for the entire school health program. (10)

"conducts conferences with teachers, nurses, and parents on specific pupil health problems. (24)

"advises the school administrators on health problems of the pupils. (32)

"advises the school administrator on the school environment as it affects the health of pupils and school staff. (34)

"reviews private physicians' medical reports and recommendations about pupils. (43)

"advises teachers and nurses on screening devices and procedures. (45)

"offers consultation in developing a program to help parents secure proper health services for children. (52)

"serves as a health education consultant for the entire school health program. (55)

"keeps himself informed on follow-up care. (56)

"interprets needed follow-up care to parents and pupils. (57)

"advises teachers in the systematic and continuous observation of pupil health. (60)

"makes himself available to all school personnel for consultation on health problems." (62)

PUBLIC RELATIONS:

"The school physician:

"belongs to and participates in national, state and local medical organizations. (2)

"encourages the local medical society's interest in the school health program. (11)

"consults with and participates in the community health council or similar local organizations. (17)

"consults with professional medical, dental, nursing and other health groups concerning the school health program. (21)

"works with the school administrator on a public information program on school health. (36)

"shares responsibility for informing the public of the school health program through parent-teacher associations, civic talks, discussions. (41)

"uses community professional personnel in the health education of the public. (51)

"prepares a list of medical, dental, and nursing specialists willing to be consultants in the various phases of the school health program." (69)

EMERGENCY CARE:

"The school physician:

"assists in planning policies and procedures for emergency care, such as victims of accident or sudden illness. (5)

"periodically assists the school health team in evaluating the school emergency care program. (15)

"makes provisions for contacting parents for emergency cases requiring more than first aid." (64)

ADAPTED PHYSICAL EDUCATION:

"The school physician:

"encourages periodic medical examination of handicapped pupils by family physician or other community resources to determine their physical status. (7)

"reviews the medical reports and recommendations for handicapped pupils. (23)

"advises physical educators on the kinds of activities for specific individual handicaps. (38)

"assists in the selection of pupils for adapted program. (46)

"assists with the over-all planning of adapted physical education." (76)

ADMINISTRATION:

"The school physician:

"assists in developing school health policies. (13)

"helps to interpret health laws and regulations to school personnel. (26)

"makes recommendations on school sanitation. (31)

"participates with health personnel in planning entire school health program. (35)

"assists in developing up-to-date cumulative health records. (39)

"makes recommendations for planning health center or health room within each school. (49)

"evaluates conditions under which competitive sports are played. (59)

"aids in planning the integration of healthful living and health services in the curriculum." (70)

SPECIAL EDUCATION PROGRAMS:

"The school physician:

"assists in the selection of physically handicapped pupils for special education programs. (44)

"periodically assists in the evaluation of special programs for handicapped pupils. (61)

"is responsible for medical supervision of programs for special education pupils. (63)

"assists in the selection of emotionally disturbed pupils for special education programs. (67)

"periodically assists in the evaluation of handicapped pupils to determine status and progress. (71)

"supervises the general health and well-being of handicapped pupils." (77)

IN-SERVICE TEACHER EDUCATION:

"The school physician:

"provides health information for teachers, nurses and school administrators. (33)

"offers professional consultation regarding screening, observations, teacher-nurse-parent conferences, follow-up, and the educational opportunities in medical services. (42)

"offers professional consultation in health education curriculum development. (65)

"assists physical educators in program planning to improve health aspects of physical education. (73)

"assists with in-service education of teachers in the total school and community health program. (72)

"helps select other professional health personnel to assist with in-service education in the school health program." (75)

IMMUNIZATIONS:

"The school physician:

"encourages parents to have their children immunized. (4)

"encourages parents and pupils to have the family physician administer all immunizations. (14)

"assists in planning with the local health department and other community resources for immunizing indigent pupils. (18)

"encourages immunization as a requirement for school entrance. (19)

"is responsible that the immunization status of all pupils be known. (68)

"assists in planning a program for immunizing all school children." (81)

HEALTH APPRAISAL:

"The school physician:

"encourages pupils to have medical examinations done by a family physician when needed. (3)

"studies the results of pupil medical examinations with school health personnel for selecting those needing follow-up. (12)

"concerns himself with the physical, mental, social and emotional well being of pupils. (20)

"performs medical examination of children referred by the teacher or nurse for specific health problems. (25)

"conducts periodic medical examinations of pupils not examined by private physicians. (29)

"urges secondary school pupils to discuss the findings of their medical examinations with their parents. (30)

"assures the coordination of all health service personnel dealing with handicapped children. (40)

"conducts medical examinations of athletes. (47)

"advises parents how to use private or community resources for the correction of pupil defects. (48)

"conducts examinations of previously injured or ill athletes before their readmission to athletic programs. (53)

"studies the medical examination records of all new school employees. (54)

"arranges for medical examinations of teachers and school employees in accordance with state or local regulations. (74)

"medically examines any teacher or school employee specifically referred by the administration. (78)

"requests the presence of parents for medical examination of secondary school pupils with specific health problems. (79)

"requests the presence of parents for medical examination of elementary school pupils." (80)

2. The responsibilities rated medium and practical, are as follows:

ADMINISTRATION:

"The school physician:

"assembles budget data for his program for presentation to the school administration. (84)

"assists in recruiting, selecting and evaluating professional personnel to be employed in the school health program." (86)

CONSULTANT:

"The school physician:

"provides consultation concerning healthful school lunch practices." (88)

ADAPTED PHYSICAL EDUCATION:

"The school physician:

"periodically evaluates the school's adapted physical education program. (83)

"conducts periodic medical examinations of handicapped pupils to determine their physical status." (87)

EMERGENCY CARE:

"The school physician:

"provides first aid for pupils, faculty and employees as needed." (85)

IN-SERVICE TEACHER EDUCATION:

"The school physician:
"helps to evaluate instructional materials for use in health instruction." (82)

3. The responsibilities rated medium and not practical, are as follows:

HEALTH APPRAISAL:

"The school physician:
"periodically studies the medical examination records of all school employees. (89)
"conducts medical examination for issuing working permits to minors. (91)
"conducts examination of previously injured or ill pupils before their readmission to school programs. (92)
"medically examines all pupils periodically on a predetermined schedule. (93)
"requests the presence of parents for medical examination of secondary pupils." (94)

IMMUNIZATIONS:

"The school physician:
"immunizes indigent pupils." (90)

4. The responsibility rated low and not practical is in the area of Immunizations and reads:

"The school physician immunizes all pupils." (95)

5. The study participants rated 85 percent of the responsibilities high, 14 percent medium and 1 percent low.

6. The responsibilities rated most often in the top ten ranks stated:

"The school physician:
"works closely with school nurses to facilitate coordination of the health service program." (1)
"belongs to and participates in national, state and local medical organizations." (2)
"encourages pupils to have medical examinations done by a family physician when needed." (3)
"encourages parents to have their children immunized." (4)
"assists in planning policies and procedures for emergency care such as victims of an accident or sudden illness." (5)
"assists and cooperates with school and public health officials in the exclusion and re-admission policies of the communicable disease program." (6)
"encourages periodic medical examination of handicapped pupils by family physician or other community resources to determine their physical status." (7)
"participates in or consults with existing local medical societies." (8)
"participates in public health programs to promote the coordination of school and public health programs." (9)

7. The responsibilities rated most often in the bottom ten ranks stated that:

"The school physician:
"immunizes all pupils." (95)
"requests the presence of parents for medical examinations of secondary pupils." (94)
"medically examines all pupils periodically on a predetermined schedule." (93)
"conducts examinations of previously injured or ill pupils before their re-admission to school programs." (92)
"periodically studies the medical examination records of all school employees." (89)
"assembles budgetary program for presentation to the school administration." (84)

8. The responsibilities reported as practiced most were the same as those listed in "Finding Number 6," except for the deletion of the one

stating that "the school physician works closely with school nurses to facilitate coordination of the health service program," and the addition of the following three:

"The school physician:
"performs medical examination of children referred by the teacher or nurse for a specific health problem." (25)
"conducts periodic medical examinations of pupils not examined by private physicians." (29)
"conducts medical examination of athletes." (47)

9. The responsibilities reported as practiced least included all responsibilities listed in "Finding Number 7," and in addition those which state that:

"The school physician:
"provides consultation concerning healthful school lunch practices." (88)
"assists in recruiting, selecting and evaluating professional personnel to be employed in the school health program." (86)
'periodically evaluates the school's adapted physical education program." (83)
"helps to evaluate instructional materials used in health instruction." (82)
"assists with overall planning of adapted physical education." (76)
"assists physical educators in program planning to improve health aspects of physical education." (73)
"assists with in-service education of teachers in the total school and community health program." (72)

10. The areas of coordination, prevention of disease, consultant and public relations rated highest of the eleven areas. The areas of health appraisal, immunizations, inservice teacher education and special education programs rated lowest.

11. The several professions, by ranking individual responsibilities, ranked the eleven groups of responsibilities as set forth in the following table.

Comparison of Rank Differences Between Areas of School Physician Responsibility as Expressed by the Professions* Participating

| Area | Rank Orders of Areas | | | | |
|---|---|---|---|---|---|
| | 152 Physicians | 145 Nurses | 81 Health Educators | 77 School Administrators | 38 Other |
| Administration | 6 | 5 | 5 | 10 | 5 |
| Health Appraisal | 10 | 10 | 11 | 8 | 11 |
| Consultant | 5 | 6 | 6 | 4 | 6 |
| Immunizations | 8 | 11 | 9 | 5 | 10 |
| Adapted Physical Education | 7 | 7 | 4 | 7 | 4 |
| Emergency Care | 2 | 4 | 8 | 6 | 7 |
| Prevention of Disease | 1 | 3 | 3 | 3 | 3 |
| Special Educational Programs | 11 | 9 | 7 | 11 | 9 |
| In-service Teacher Education | 9 | 8 | 10 | 9 | 8 |
| Public Relations | 4 | 2 | 2 | 2 | 2 |
| Coordination | 3 | 1 | 1 | 1 | 1 |

*The number of dentists and classroom teachers participating was too small to give significant ranks, so they are not included in the comparisons.

12. The rank difference correlation coefficients indicating the degree of agreement between the professions rating these responsibilities which were calculated from the above rank order of areas were as follows:

| | |
|---|---|
| Physicians and nurses | .85 |
| Physicians and health educators | .65 |
| Physicians and school administrators | .65 |
| Physicians and others | .74 |
| Nurses and health educators | .83 |
| Nurses and school administrators | .65 |
| Nurses and others | .91 |
| Health educators and school administrators | .62 |
| Health educators and others | .95 |
| School administrators and others | .65 |

These rank difference correlation coefficients were calculated by the method of D. C. Adkins from the formula $P=1-\frac{6\Sigma D^2}{N(N^2-1)}$ where D is the difference in ranks for the two variables and N is number of cases. The coefficients can be compared with each other to indicate the degree of agreement by the raters.

*Conclusions*

On the basis of the evidence presented and within the limits of this investigation the following conclusions are made:

1. The responsibilities that were rated high and practiced by the study participants are the most appropriate to recommend as general guides for school physicians.
2. The identification of these recommended responsibilities should help school physicians better understand their role in the school health program, and should create better relationships between all professions working together in the school health program.
3. School physician responsibilities rated high and practical on the basis of interprofessional opinions should be mutually accepted as useful, practical recommendations by all professions in the school health program.
4. There was considerable agreement in the selection of those responsibilities most practiced and those least practiced by all study categories. Large communities, large school districts, and large single schools tend to agree more with each other than with all other categories, while small communities, small school districts, and small single schools tend to agree more with each other than with all other categories.
5. There was an observed relationship between the responsibilities and areas rated high and practical and those reported as most practiced. The responsibilities that are currently practiced least were also the ones that were rated medium or low and not practical.
6. There was considerable agreement between the professional groups rating these school physician responsibilities within the 11 areas selected for this study. This tends to indicate that the professional groups in this study were reliable raters.
7. The main responsibility of the school physician appears to be as an adviser or consultant rather than as a clinician offering medical services that are available from a family physician, or from private or public sources.
8. In general, the school physician serves the school health program

in various capacities. The school physician may be a full-time physician; a part-time physician; a city, county, district, or state health officer serving the school; a medical-educational consultant for the school; a medical adviser for the school; or just a local physician serving the school in some capacity.

*Recommendations*

1. The 81 responsibilities rated high and practical by participants in this study are recommended to school physicians as useful functions for them to perform in the elementary and secondary schools.
2. The 7 responsibilities rated medium and practical might be desirable if there is opportunity to practice them, but are of secondary importance in the judgment of the participants.
3. The 7 responsibilities rated medium or low and not practical are not recommended as school physician responsibilities.
4. This list of responsibilities is recommended as a guide for the orientation of newly appointed school physicians as well as those now in service. Where school physicians are not now serving, this list is recommended as a suggestion of desirable practices to school administrators, nurses, and other school personnel responsible for health duties.
5. The responsibilities in the areas of coordination, prevention of disease, consultant, and public relations have priority in terms of recommended practice over those in the areas of health appraisal, immunizations, in-service teacher education, and special education programs. However, a good program requires practice of responsibilities in all areas of responsibility because they all contain responsibilities that are important for school physicians.
6. It is recommended that further study be conducted of each area of school physician responsibility to define these in more detail, as well as a similar or follow up study to be conducted in about 10 years to determine changes in opinion and practice regarding school physician responsibilities.
7. Similar studies of the responsibilities of each professional field in the school health program would define professional responsibility more precisely and contribute to a better inter-professional understanding of individual responsibility and practice.

*Additional Information Derived from the Study*

In a statement prepared for presentation before the American School Health Association and for publication in their Journal it is impossible to set forth in detail the mass of data and analyses contained in a doctoral dissertation of approximately 250 pages. This material, however, is available in the library of dissertations at Indiana University, Bloomington, Indiana and can be made available on a loan basis to individuals particularly concerned with further study of this problem.

The dissertation contains the following analyses:

1. Study participants by location, employer, kind of school, professional occupation and responsibilities.
2. Current practice of responsibilities by the various study categories.
3. Mean rank order of responsibilities by location, professional occupations, community sizes, school district sizes and single school sizes.

A frequency distribution was calculated for each responsibility, for acceptance rating, practicality and current practice, for each study category.

4. Rank order based on acceptance rating and practicality for each responsibility.

5. Rank difference correlation coefficient to determine degree of agreement between ratings by professional occupation groups.

It is possible that some of these data will be used for the preparation of future papers for the Journal of School Health and other publications.

Respectfully submitted to the American School Health Association by the Committee on School Physician Responsibilities.

I. P. Barrett, M.D.
Werner Bloch, M.D.
Mildred E. Doster, M.D.
Annette L. Eveleth, R.N.
Mrs. Florence Fogle, R.N.
Austin E. Hill, M.D.
Albert N. Meyerstein, M.D.
Charles Outland, M.D.
Charles W. Pemberton, M.D.
Lloyd Richards, D.D.S.
Charles E. Spencer, Ph.D.
W. K. Striet, M.A.
G. G. Wetherill, M.D.
Ruth Weaver, M.D.

* * * * *

## NEWS NOTES OF INTEREST

• The Second National Conference on Evaluation in Public Health attracted some 115 invited participants to Ann Arbor on September 12–14 for the purpose of developing "Indices for Community Health Services." Seven task forces were organized into working groups during the Conference. Wesley P. Cushman served as Chairman for the task force on the Health of School-Age Children. Other ASHA members who were members of this group were Roy Davis, Mabel E. Rugen, John Shaw, Elena M. Sliepcevich, and Wallace Ann Wesley. The working drafts are now in the process of refinement and will be published by the American Public Health Association which called the conference under the sponsorship of their Program Area Committee on Public Health Administration.

The *Guide to a Community Health Study*, revised 1960, is now available for purchase from the American Public Health Association, 1790 Broadway, New York City. The *Guide* was published for field testing and was used as a point of departure for the development of the Indices.

* * * * *

• Twelve pages are devoted to a symposium on "Venereal Diseases and the Teenager" in the September/October issue of the *Royal Society of Health Journal*. Readers will find papers devoted to teenagers in venereal disease clinics, venereal disease as an index to teenage promiscuity, and the health education aspect of this problem. The latter article calls for an evaluation of existing methods and points up the need for a survey on a national basis to answer some seven questions related to the number of children who have received instruction, the methods that have been used, the kinds of audio-visual aids employed, the person who gave the instruction, the proportion of children who were promiscuous after instruction and the number who contracted the disease, and finally, the personality characteristics of teen-agers who had contracted venereal disease.

• Dr. Milton J. E. Senn, Chairman, Department of Pediatrics, Yale University, Medical School recently stated that "school learning problems, not delinquent acts, are the leading cause of admittance to child guidance clinics in the United States." He added, "consquently, schools provide the most fertile ground for psychiatric programs."

* * * * *

• In a nationwide sampling of 37,000 homes by the USPHS, it was found that Americans are plagued by 115.3 million colds during a "normal" year. The "acute upper respiratory conditions" account for another 27.1 million cases. The common cold costs Americans 39.5 million days of work and more than 64 million days of absence from school.

* * * * *

• Nutritionists who may be besieged with questions about the need for special diets for athletes will find "Nutrition and Athletic Performance" by Jean Mayer and Beverly Bullen in the December 1959 issue of *Postgraduate Medicine* a well-documented article of eight pages devoted to a discussion of timing and relative size of meals, meal composition and athletic performance, "crash" diets, and nutrition immediately preceding and during competition. The authors who are members of the Department of Nutrition, Harvard University School of Public Health, offer conclusions based on authoritative research. Among these are: "The evidence . . . indicates clearly that the optimal diet for an athlete is not different in any major respect from that which would be recommended to any normal person." . . . "Wide variations of protein intake do not seem to influence performance." . . . "The value of corn oil and Vitamin E has not been definitely demonstrated." . . . "Certainly, there is no *nutritional* justification for training tables at present."

* * * * *

• If you missed the announcement of research findings that indicate ice water is an effective treatment for burns you will be interested in the results of studies reported by Dr. Alex G. Shulman of Los Angeles on 150 patients treated in this manner. He recommends ice water as an effective first-aid treatment for any burn which covers up to twenty per cent of the body and reports that pain rapidly vanishes and the usual inflammation is reduced following the burn.

* * * * *

• Two articles of particular interest for those with responsibilities for the health instruction program appear in the AAHPER *Research Quarterly*, October 1960. "Prevalence of Certain Harmful Health Misconceptions Among Prospective Elementary School Teachers" by Joseph Borozne and Leslie W. Irwin points out that "those individuals who had health and biology or biology subscribed to fewer misconceptions to a highly significant degree." Warren E. Schaller reports on the findings in a study "Health Needs and Interests as a Basis for Selecting Health Content in Secondary Schools." The inventory was submitted to students, parents, health teachers and physicians. The results indicate a common core of health interests among high school students, but health needs are markedly different among high school girls and boys. Parents, health educators,

and medical doctors agreed on the basic health needs of high school students, but there was some disagreement on what the student needs to know about health among the adults and students to whom the inventory was administered.

* * * * *

• The final two publications issued as a result of the 1960 White House Conference on Children and Youth are *Recommendations-Composite Report of Forum Findings* which may be purchased from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. for 35¢. *Conference Proceedings* includes the entire Conference story from President Eisenhower's Call To Action in 1958 to the final Recommendations. This 429 page report contains also speech abstracts for the general sessions, theme assemblies and the eighteen forums. The above mentioned *Composite Report* is also included. The cost is $2.25 from the National Committee on Children and Youth, Suite 411, 1145 Nineteenth St., Washington 6, D. C. A Composite Index of the reports prepared by State Committee for the 1960 Conference is being sent to the Headquarters of each State Committee which also has a complete set of state reports.

Available in full color is the theme picture of the Conference, "These Are Our Children" in two sizes: 8″ x 10″ for $1.00 and 10″ x 14″ for $2.00. The prints, suitable for framing, may be purchased from the National Committee for Children and Youth at the above address.

* * * * *

• "Trained first-aiders are reducing cardiac fatalities with the help of a new and simple technique designed for emergency use" is the statement introducing an article in *Today's Health*, November 1960 which is titled "When the Heart Stops" by Paul W. Kearney.

* * * * *

• Community groups organized to promote health careers may be interested in a series of recent publications for young people. Two of particular interest to our readers are *So You Want to be a Doctor* by Alan E. Nourse, M.D. and *So You Want to be a Nurse* by Allan E. Nourse, M.D. and Eleanor Halliday, R.N. The books sell for $3.00 each and are available through Harper and Brothers, New York City.

* * * * *

• Among the most recent publications of the Joint Committee of Health Problems in Education of the AMA–NEA is *Health Examination of School Personnel* published in 1960. The outline of contents includes aims of the health examination program for school personnel, need for health examinations, definition of school personnel, groups responsible for introduction and promotion of health examination programs, and a description of the examination. The cost is 50¢ a copy from either of the two parent groups of the Joint Committee.

* * * * *

• The American Association for Health, Physical Education, and Recreation and the National Health Council, in cooperation with other

professional, voluntary, and governmental organizations called together a group of sixty individuals for a National Conference on Coordination in School Health in Washington on October 5–7. The purpose of the conference was "to explore and identify guiding principles for effective school-community relationships necessary for the development of coordination in school health work." Fred V. Hein of the American Medical Association was Conference Director. The four work groups developed basic ideas and principles for a statement which will serve as a guide for teamwork in school health. A writing team composed of the Conference Director, William Creswell of the AAHPER and Levitte Mendel of the National Health Council are in the process of refining the statements which emerged from the group discussions. A publication is scheduled for early in 1961.

* * * * *

## A PHYSICIAN AND A GUIDANCE COUNSELOR LOOK AT THE PROBLEM OF JUVENILE DELINQUENCY

JAMES W. MCKENNA AND ALBERT N. MEYERSTEIN, M.D.

A physician could look at juvenile delinquency as a disease of unknown etiology. Any disease of unknown cause can be treated only symptomatically. Sometimes an empirically found remedy may be successful, as for instance, aspirin in rheumatic fever. But only if the cause of a disease has been detected, is its prevention possible.

In rheumatic heart disease, we are near to this aim because we know that it is the consequence of repeated infections with the beta streptococcus in an individual with a certain way to react to such an infection. This special disposition is inherited. On the other hand, this disposition will not mean anything unless infection occurs.

The observation that rheumatic fever is more frequent in overcrowded slums and in Army camps and infrequent in southern climates with sunshine was important for the discovery of its streptococcic etiology. But the most important finding was that the disease starts in early childhood, but leads to the consequence of the damaged heart almost only after a few recurrences of the disease

Does this description of the development of rheumatic heart disease not parallel the development of another heart disease, metaphorically speaking, juvenile delinquency? Isn't this, too, a disease starting in early childhood, nourished by recurring insults and frustrations under special climatic conditions and sometimes contagious and doesn't it affect only those individuals with a certain reactiveness?

Why do we stress this similarity? Not only because we like allegories, but because we may be able, following this analogy between rheumatic fever and juvenile delinquency, to find a way to suppress juvenile delinquency as we were able to bring about a decline of rheumatic heart disease. As clinicians, pathologists, serologists, bacteriologists, statisticians and public health workers were cooperating to solve the problem of the genesis of the rheumatic heart, so will the teamwork of teachers, criminolo-

gists, social workers, psychologists and physicians be necessary to explain the natural history of the juvenile delinquent.

The first step would be to define the clinical picture of the juvenile delinquent. Again the comparison with rheumatic fever comes to mind. Much clinical sagacity was needed to recognize such different symptoms as joint pain and swelling, skin eruptions, cardiac failure, pleurisy and St. Vitus dance as belonging to the same disease entity, the more because all these symptoms may also occur in other diseases. The same difficulty confronts us in the case of the juvenile delinquent. We may describe the juvenile delinquent as that young individual who, after a long or short period of aberrant behavior, performs premeditated malicious acts opposed to the recognized moral laws of the society in which he lives. It is the action which is delinquent, not the deed. The same deed committed by two different people may be a delinquent action in one case and not a delinquent action in the other. We should not call the pranks of high-spirited and over-energetic youngsters delinquency. Certain acts against society may represent on the spot short-circuit reactions of fearful, provoked or feeble-minded children or they may have their origin in an exaggerated code of honor of a boy or girl who tries to protect his friends. This is not delinquency. Other youths may be involved only because they were incidentally in the company of delinquents.

The history of the culprit is all significant. There is a difference between a group of boys who, after their football game, accidentally smash a window, are incited by the sound of the shattered glass to break more windows, and another group of boys who move out into the schoolyard on a Saturday afternoon with determination to destroy school property to take vengence on their hated teachers. The reason or intention is important in diagnosing behavior as delinquent.

Which institution would be better able to study the natural history of the juvenile delinquent than the school? The large city schools are probably not suitable for this purpose, because there is too frequent a change of residence to allow prolonged follow-up. There is too little community cohesiveness, too much alienation between home and school and too much overlap of confusing ecological factors. The ideal field for research in this field is our suburban school system with a pupil population of 6,000 to 10,000. Here we find comparable groups of children of different social, economic, cultural and ethical backgrounds. These schools are better able to establish a good relationship between home and school; so creating an opportunity to add knowledge of home conditions and preschool experiences of the children to the evidence of direct observation. Most of these schools also have the personnel needed for such research.

According to our definition of the juvenile delinquent, we have to direct our attention to the atypical child. Does the school really know all its pupils well enough to recognize the atypical child as early as possible? Individually, the classroom teacher, the physical education teacher, the art teacher or the school nurse may observe deviant traits, but are these observations built into a kinematographic photograph of the child? The archives of such a picture file would be the guidance department. Unfortunately, our guidance departments are not organized vertically. They are split into elementary and secondary halves and, more often, into thirds with the secondary half divided into a junior and senior section.

The high school guidance teacher is preoccupied with the students' choice of curriculum and their preparation for jobs or further academic study. He cannot dedicate enough time to the follow-up of the atypical child. According to our view, it would be more practical to divide all the students in a school system among the available guidance personnel, so allowing one and the same person to follow the child through his whole school life. Some families produce more than one atypical child and there would be the additional advantage, that the guidance counselor handling all the children of the same family would have an easier task by knowing the problems prevailing in such a family.

Because nobody can keep observations made during twelve years of school attendance in his memory and because school personnel is changing, good records are necessary. Too frequently, it is argued that observations registered in the child's record may be prejudicial to that child in his later school life. Or the school psychologist may be afraid that confidential statements made to him personally may be revealed to the "wrong" people. We do not know "wrong" people among educators bound to the same professional secrecy as the physician. And we do not know any observation which later on may not be important for judging a child. It is an undeserved doubt on a teacher's ability of critical discernment to assume that he would blindly bend to his colleague's opinion. A consultant would not accept the diagnosis of the referring physician without evaluating for himself the data given to him by the doctor, but it would be difficult for him to come to a diagnosis without being able to use these data on the patient's history and laboratory findings.

The trouble with records registered over a long span of time is that they are voluminous and often written in a handwriting difficult to be deciphered or the space available is too limited to assay correctly the situation. A record which is flexible enough to allow comprehensive reports on those pupils for whom it is indicated and not too bulky for the average pupil, is needed as well as a code such as the one used in hospitals to record diagnoses, or sheets with lists of possible observations as used by the Gluecks where the observer has just to mark down his observation.

It is not pertinent to this paper to enumerate what should be recorded. Mention should be made, though, that until now the voice of some members of the teaching team may not have been heard often enough. We mention the school nurse, the physical education teacher, and the art teacher. The latter two have a better opportunity to watch the spontaneous self-expression of the child than the psychologist who has to create a special situation for the same purpose.

Not only observation, but also the application of special tests will be necessary to find out which special features differentiate the juvenile delinquent from other atypical children. May we suggest to add to the commonly used tests one examining the possibility of the presence of an abnormally low frustration threshold in some children. It may be that, through repreated frustrations which would come about in a person with an abnormally low frustration threshold, this person begins to turn against society, feels sorry for himself, and begins to feel that his total environment is not treating him in the way he should be treated and not fairly in relation to his peers. This disposition or proness (abnormally low frustra-

tion threshold) could be inherited as the special disposition is in rheumatic fever. The manner in which a person reacted to these repeated frustrations would determine the degree to which the disease might damage the youngster. The disposition would mean nothing unless repeated frustrations occurred and the reactions to these frustrations were negative. Further investigation into this proneness and reactiveness might give us some etiology of this disease of juvenile delinquency.

A word may be said about the "climate" that promotes juvenile delinquency. The frequently effective attempts of our modern scientists to shatter axiomata believed to be fundamental or final until now, may undermine the process of healthy maturation of many youths. Lack of positive stimuli lowers defenses. If we supply practical, effective basic stimuli to our students instead of allowing them to feed themselves on a momentarily gratifying but slowly depleting diet, we will have less of a "beat generation." Movies and television may not incite delinquency, but they teach the technique of crime and of lovemaking. In an attempt to imitate what was seen on the screen, a spark may be thrown off kindling a flame. Two other bad "climatic" factors are hypocrisy in the children's home environment, as well as in the environment outside the home and the lack of courage and aggressiveness on the part of the school towards the parents of the pupils. As a patient does not prescribe to the doctor, so the parent should not run the school.

We will not talk of the treatment of the disease "juvenile delinquency", because as stated in the beginning, treatment should have an etiological basis which we do not yet possess for this disease. We would like to mention only two things which we should not do because they breed the disease. We should never promote a child to junior high or high school only because his physique has outgrown the grade school. There are children who are not academic material. We should allow them the opportunity for work experience coupled with school theory in trade or technical schools, or allow them to leave the school and to become apprentices of an artisan or a foreman, or a housewife under the supervision of the school. The practical technician or businessman or good housewife will not only teach these children their craft, but they will, by their personal influence, make useful members of society out of defeated aimless boys and girls as long as this is accomplished under the supervision of the school and the selection of "teachers" is regulated by competent personnel.

Another wrong that we do as individuals out of the goodness of our hearts is to try to solve the problems of a child all by ourselves. It may make us feel very good to believe that it was "we" who extracted a child from a difficult situation. But, in the future there will be other difficult situations and there will be the danger that they will be handled by other persons by methods antagonistic to the one used before. Such children will then feel bewildered or betrayed, or they will take advantage of this situation and play one of the good-natured helpers against the other one. We should attempt to help each person to become acquainted with methods of handling any problem so as to make them independent in solving their problems, not always dependent. We should always use the whole team in planning to help and we should execute our help according to the plan and we should have a record of the plan and of the child's reaction to our

measures. This whole approach can initiate in our schools and be regulated by our schools, but it must be a community-wide approach as well as a school-wide approach.

Juvenile delinquency is the consequence of repetitive damage to a prone child. If we were able to detect early the child's proneness to become delinquent, if we would be able to define the damaging factors, we may learn to prevent juvenile delinquency and to treat its causes.

* * * * *

## THE FUTURE OF SCHOOL NURSING*

DOROTHY C. TIPPLE, R.N.

*Associate in School Nursing, State Eduction Department, Albany, N. Y.*

The role of the nurse in the school is interrelated with the development and philosophy of school health services. We cannot talk about school nursing as an entity, but only in its proper perspective to the entire school health program.

The uniqueness of the school health service lies in its emphasis on education. The primary function of the school, as one of the official agencies of the community, is education in all its aspects. The health obligations of the school, then, are based on the following responsibilities: (1) to help every child attain the highest state of physical, mental, social, and emotional health of which he is capable; (2) to help every child avail himself fully of his opportunities for education; and (3) to utilize the educational facilities of the school to promote the development of sound health attitudes, practices, and knowledge to enable boys and girls to become increasingly self-reliant in matters pertaining to personal and community health.

Within this framework we recognize the responsibility of the school to establish services to assure adequate health appraisal and health counseling; to make provision for emergency care for illness or injuries occurring at school; to maintain a healthful physical and emotional climate for learning; to make provision for a broad, sequential program of health education; to provide the necessary modifications of program to meet the needs of exceptional children; and to organize programs of in-service health education as necessary for all school personnel.

Educational programs today and in the future are, and must be, influenced by socio-economic changes in society. For example, trends in population growth and distribution, with their effect on family living, are factors to be considered in planning for desirable mental, emotional, and social aspects of child development.

Health needs of children change with the socio-economic advances of society, with progress in medical knowledge, and with increased understanding of child growth and development. School health services in the future must be based on priorities established by an impartial study of these changing needs. For example, since accidents are the leading cause

*As briefed by Gertrude E. Cromwell from The Journal of The American Medical Association. Sept. 5, 1959.

of death of the school-age child, we see clearly the need for intensive safety education. With the present focus on prevention of juvenile delinquency, we see the school's responsibility to cooperate with parents and with other youth agencies in the development of an environment more conducive to social and emotional adjustment.

We must develop programs of nursing education to provide the expertness needed to carry out the specialized services in the schools. We are currently looking at our nursing education programs to determine how effectively they provide this expertness and whether they provide it to the degree required.

Many states are currently attempting to set up certification requirements for nurses employed in the schools. The primary purpose of certification is to provide standards of preparation to improve the quality of service. Such standards, to be effective, must be closely aligned to programs of nursing education.

No professional group has made a greater effort to gear its service to the needs of mankind than has the nursing profession. There is every indication that school nurses will continue to evaluate existing services and will have enough of the pioneer spirit to meet the demands of the continual and rapid change which is characteristic of our society.

* * * * *

### *Old Ways of Meeting New Problems*

This is the story of Wilfredo "Freddy" Vera, who is six years old and attends St. Ann's School in Steelton, Pennsylvania. Although Freddy is different from the other boys in the first grade, he has a special quality of lovableness that makes him close to his classmates and teacher. You see Freddy was born without his right hand—his arm comes as far as his elbow and ends there in a small stump. Through my years of teaching I've come to know many children with handicaps—those with impaired vision, the partially deaf, the crippled and those with speech defects. Never had I seen or taught a child like Freddy.

During the first month of school Freddy attended classes without a right hand, but in October Freddy left for the Hospital for Crippled Children in Elizabethtown, Pennsylvania, a state facility, to learn how to use the artificial hand he would receive there. At this hospital they have a team accustomed to working with amputees who help the children adjust to their prosthesis and instruct them in its proper use. While we are familiar with the difficulties many people have with their new dentures, we give little thought to the problems faced by youngsters who have never done the thousands of things so natural when we have all our limbs. This is a fairly new concept in physical medicine. It is because this help has not been available previously that many youngsters have resorted to hopping or using one hand only, finding their prostheses clumsy and unmanageable, a burden rather than a bonus.

Before Freddy's return to school, I was invited to visit the team at the hospital. This was because of the important part any teacher plays in the continued acceptance of his handicap to the child in her class. She is generally an adult he admires. If he sees his teacher shrink from his artificial hand, he will copy her, and soon the prothesis is not worn, and the child is withdrawing from his companions because to him, too, his handicap has become shameful and intolerable. All of the people at

the hospital stressed one point—Freddy must never become the object of ridicule.

I was deeply concerned, of course. How would the children regard Freddy's hook appliance, so different from his other hand, so new in their experience? What would they say? Would they laugh at him, or ignore him?

I hurried the class in that first day, promising them a treat—I had a wonderful story for them, and a surprise.

After prayers I asked Freddy to stand in my chair so that everyone could see him. Then I began my story, remarking first that we lived in a wonderful world and had received many blessings, but we were not always aware of these. I continued: "You see, boys and girls, God loves each and every one of you very much, but he loves Freddy in a very special way. Freddy was born not with two hands like yours and mine, but with only one. There are many people in the world who are very good and want to help everyone in every way they can; that is how a make-believe hand was made. You are to call Freddy's hand a prosthesis. Little Freddy's hand does not have five fingers like yours, but instead it has two aluminum hooks, (I showed the children here) which are to be used like fingers. This part of the prosthesis you are to call a terminal device. Now say after me . . . 'Freddy's prosthesis and Freddy's terminal device.' (I would like to note here that I have never heard the children use any other terms but these.)

"Do you remember how Freddy was not able to help us much before he went to the hospital? Well now, I'm going to show you how wonderfully Freddy can do all the things you and I can do. Freddy, will you please show the boys and girls the chalk? Now, pick up the eraser . . . . Now, Freddy will you give Joseph the story book on my desk . . . ."

After each demonstration the children clapped and clapped. I then told them they must never make fun of Freddy's hand as it was very useful. Freddy seemed proud of his new accomplishments, and was quite matter-of-fact as he answered his classmates' questions. As he left for home, one of the children hugged him and said, "I'm so glad you have a new hand."

Now Freddy does many helpful things in the classroom. He is always the first to volunteer, an example being his readiness to pass the straws at recess time for milk. Greeting the mailman and distributing the mail is his particular pride.

If anything, Freddy seems to have developed a greater sense of fairness at play. The children vie with one another to see who will be lucky enough to hold his new hand. All of us were pleased when Freddy announced that he had mastered a tiresome chore—he could tie his shoes. Nor is he likely to lose his skills, for we encourage him to practice by doing things like helping smaller children with their wraps.

It has been an enormous satisfaction to feel that the first grade children and I have contributed to Freddy's successful adjustment to his handicap. Since a child of his age spends so much time in school, the attitudes of all the people he encounteres here are vital. When a farmer plants tomato seedlings he expects a crop not of cantaloupes, but of tomatoes, and where we sow interest and understanding they usually yield strong positive qualities.

SISTER MARGARET, St. Ann's School, Steelton, Pennsylvania

*New Second Edition.....*

# HEALTH FOR EFFECTIVE LIVING

**By**

**Edward B. Johns and Wilfred C. Sutton**

**University of California**

**and**

**Lloyd E. Webster, Los Angeles County Schools**

**507 pages, $6.25**

This fine text has been improved and updated to meet the needs of the growing number of schools interested in teaching the modern approach to health education. Attractive illustrations and a new 2-column format improve readability. The text aims to assist instructors and students by providing coordinates with the college health program and describing the major health needs of college students throughout the United States. Suggested activities are provided to assist the student in appraising his own demands and desires. Ways and means to meet student needs and interests in relation to personal, family, and community health responsibilities are discussed. Main emphasis is given to the total functioning of the individual in his society rather than the purely physiological aspects of living.

*Send for an on-approval copy*

**McGraw-Hill Book Company, Inc.**

330 West 42nd St. New York 36, N. Y.

## EDITORIAL STAFF

Dorothy Gabrielsen, Ph.D., *Editor*
337 W. 17th Ave. The Ohio State University, Columbus 10, Ohio

Carolyn L. Wagner, *Assistant to the Editor*
337 W. 17th Ave., The Ohio State University, Columbus 10, Ohio

## ASSOCIATE EDITORS

Patricia Caldwell, R.N.
Abington School District
Abington, Pennsylvania

Arthur Hanawalt, Ph.D.
Department of Health Education
Pennsylvania State University
University Park, Pennsylvania

Donald A. Dukelow, M.D.
Consultant in Health and Fitness
American Medical Association
Chicago, Illinois

Edward B. Jones, Ed.D.
Health Education Unit
University of California
Los Angeles, California

Rosalie M. Fiske, Ph.D
State Board of Health
Raleigh, North Carolina

Paul Kinsey, M.D.
Pasadena Public Schools
Pasadena, California

Rosalie Guzman, M.D.
United States Public Health Service
Washington, D. C.

Virginia Knaus, D.N.
San Francisco Medical Center
University of California
San Francisco, California

Ross E. Gorman, D.D.S.
State Department of Public Instruction
Albany, New York

Wesley M. Seaton, Ed.D.
Department of Health Education
Colorado State College
Greeley, Colorado

Dorothy Tibbs, R.N.
State Board of Education
Albany, New York

## CONTRIBUTING EDITORS

Donald K. Bottenberg, Ed.D.
Southern Illinois University
Carbondale, Illinois

Mary K. Bryan, Ph.D.
The Ohio State University
Columbus, Ohio

## EDITORIAL BOARD

Abram Cohen, D.D.S., Chairman (1953)
Supervisor of Dental Services
Board of Education
Philadelphia 3, Pennsylvania

H. S. Hoffman, Ed.D. (1953)
Professor of Health Education
University of Illinois
Urbana, Illinois

Elena M. Serwetnyck, D.P.H. (1951)
Professor of Health Education
The Ohio State University
Columbus 10, Ohio

Helen T. Wagner, R.N. (1952)
Consultant in School Health
State Department of Education
Hartford, Connecticut

John M. Lassy, M.D. (1952)
Denver Public Schools
Denver 2, Colorado

Charles C. Wilson, M.D. (1951)
Professor of Education and Public Health
Yale University
New Haven, Connecticut